KRAMER ELECTRONICS LTD.

USER GUIDE

Control Software Guide for the VP-747 Universal Presentation Matrix Switcher/Scaler

P/N: 2900-300092 Rev 1

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1 Introduction

Control Software for VP-747 is an optional software application for remotely controlling the Kramer VP-747 *Universal Presentation Matrix Switcher/Scaler* from a PC via either the RS-232 serial port or the Ethernet port.

Using this software you can:

- Switch from preview mode to program mode
- Select an input video signal
- Control the output: picture-in-picture, picture+picture, split screen, freeze frame and video output blanking
- Change picture parameters

The Control Software application can be downloaded from the Kramer Web site: http://www.kramerelectronics.com.

This guide describes how to install and operate your *Control Software*. We recommend that you review its contents before proceeding.

The information described in this manual is based on the information given in the User Manual for the VP-747. For further explanations, see the VP-747 User Manual.

2 Installing the Control Software

Download the *VP-747 Control Software* application from http://www.kramerelectronics.com.

The Controller Software requires the following:

- Windows™ XP, Vista or Windows™ 7
- Microsoft .Net Framework version 3.5

To install the Control Software:

1. Double click the *Setup.exe* file.
   The *Welcome* window appears:

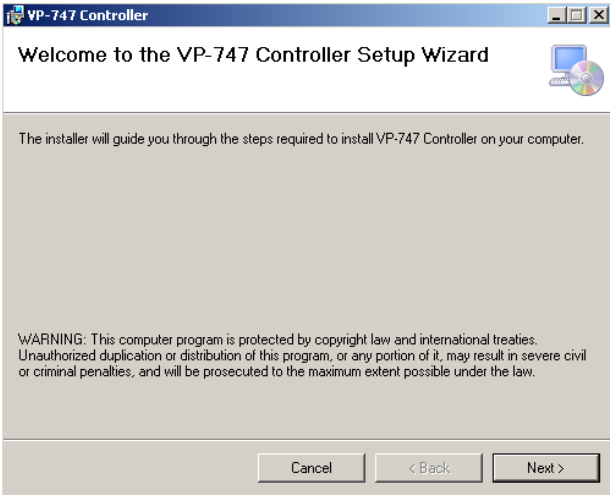

Figure 1: Welcome Window

2. Click *Next*.
   The *Choose Destination Location* window appears:

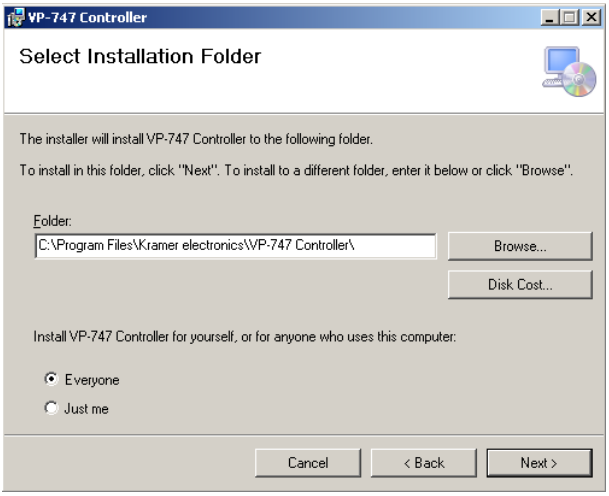

Figure 2: Choose Destination Location Window

3. Click *Browse* to select the destination folder.

4. When finished, click *Next*.

   The *Confirm Installation* window appears:

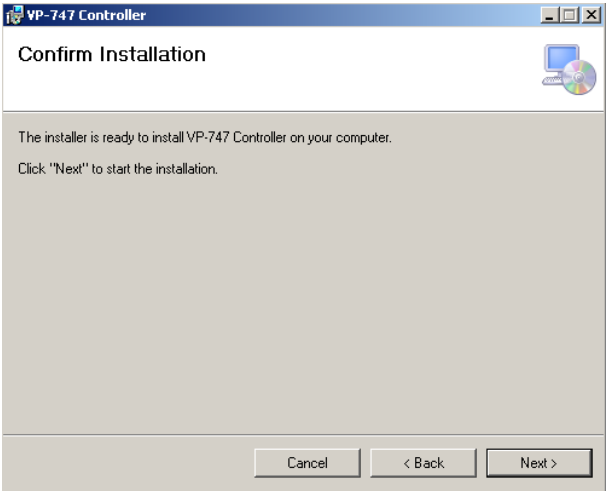

Figure 3: Confirm Installation

5. Click *Next*. The Installation Progress window appears:

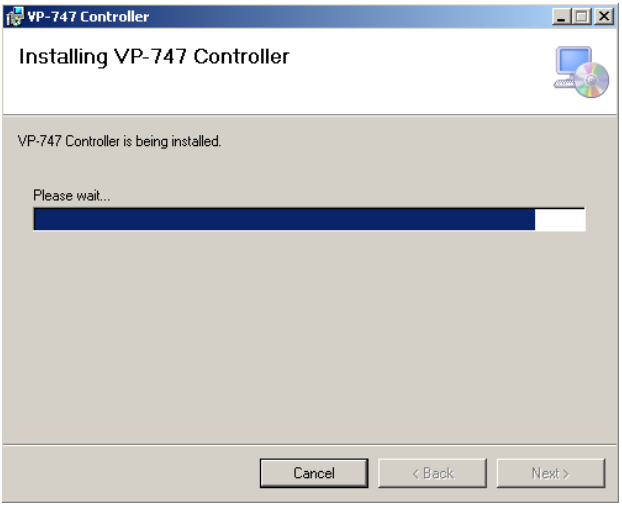

Figure 4: Installation Progress Window

Then the *Installation Complete* window appears:

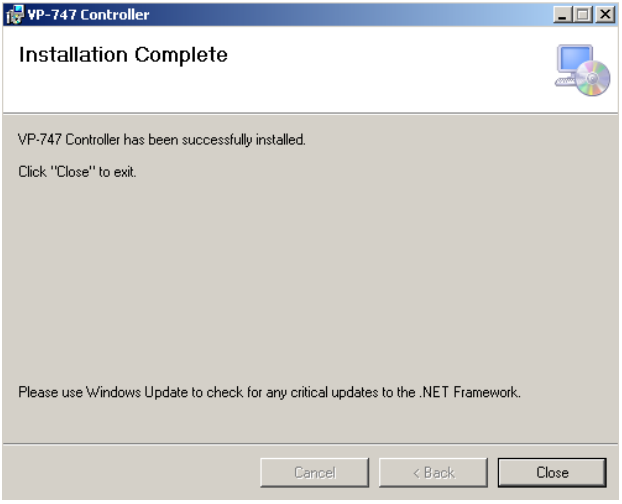

Figure 5: Installation Complete Window

6. Click *Close*.

   An icon appears on the desktop and a shortcut appears in the *Start Menu Programs* folder in the *Kramer* sub-folder.

2.1 Connecting the PC

Refer to the VP-747 User Manual for instructions on how to connect the device to a PC.

3 Defining the Control Software

Double-click the Control Software icon to run the application. The Main window opens (see Figure 6). The main window has a menu bar, two buttons and four areas – Inputs, Windows and Transitions.

Figure 6 and the following tables define the Control Software.

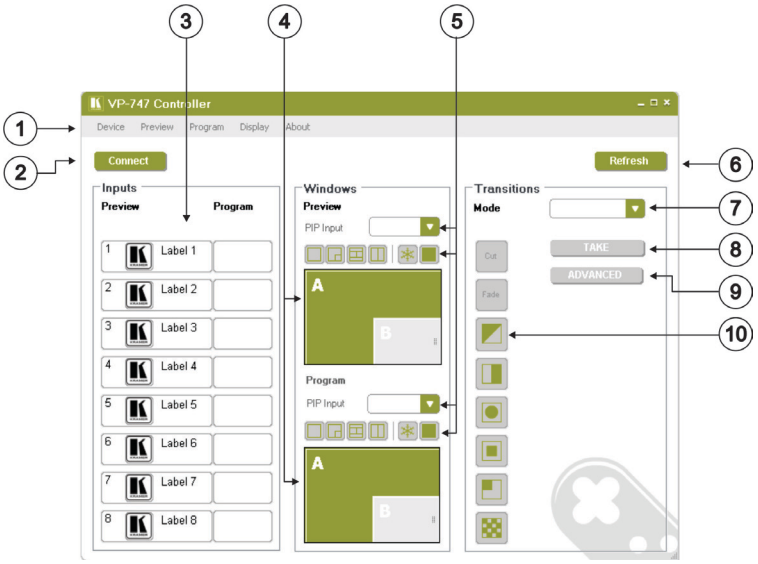

Figure 6: VP-747 Controller Software Main Window

Main Window Features		
#	Feature	Function
1	Menu Bar	Bar containing all the menus used for configuration and control. For an explanation of all menus, see Section 3.1
2	*Connect/Disconnect* Button	Connects or disconnects the controlled device
3	*Input* Buttons	Click one of the 8 preview or program input buttons. The selected input button turns green, see Section 3.2
4	PIP Preview Windows	These windows show how the PIP feature is configured in the preview and program windows
5	*PIP Input* Dropdowns/ Preset Buttons	Click to choose the source of the picture to insert in the PIP display. Click to choose screen presets, see Section 3.3
6	*Refresh* Button	Rereads and reloads the present main Input settings
7	*Transition Mode* Dropdown	Choose Follow or Swap as the transition mode

Main Window Features		
#	Feature	Function
8	*Take* Button	Pressing *TAKE* causes the transition to occur The effect is only seen when watching the program output. The preview screen blanks during the transition
9	*Advanced* Button	Click to open a list of transition parameters, see Section 3.4
10	*Transition Mode* Buttons	Click to choose screen-to-screen transitions

3.1 Defining the Menu Bar

The following table describes the Controller Software menu bar options.

Menu	Sub Menu 1	Sub Menu 2	Description
Device	Connect/ Disconnect		Connects or disconnects the controlled device
	Factory reset		Returns the device to its preset default settings
	Refresh		Refreshes the information on the screen
	Panel Lock		Prevents tampering with the front panel buttons. Settings: On/Off
	Panel Save Lock		Select On or Off Set to ON to save the lock status when the machine is powered down
	Panel Input Lock		Select On or Off Set to OFF so you can still use the SOURCE buttons on the front panel even when the lock button is on
	TCP/IP		For setting the IP address, subnet mask, gateway and DHCP After changing the IP address the unit disconnects and it must be reconnected with the new IP address
	Baud rate		9600, 115200 After changing the baud rate the unit disconnects and it must be reconnected using the new baud rate
Preview and Program	Presets		Full. PIP, Pic plus Pic, Split
	Output Resolution		Choose from 43 resolutions, native and 4 custom
	Selected Input Properties	Source Type	RGBHV, RGBS(PC), RGsB(PC), RGBS(video), RGsB(video), YCbCr, Y/C, Video, HDMI
		Video Standard	Sets the video source standard: Auto, NTSC, PAL, PAL-M, PAL-N, NTSC 4.43, SECAM, PAL 60
		H-Position	Sets the horizontal position of the display: 0-1000
		V-Position	Sets the vertical position of the display: 0-1000
		Frequency	Sets the frequency for UXGA inputs: 0-50
		Phase	Sets the input phase: 0-31

Menu	Sub Menu 1	Sub Menu 2	Description
		Auto Image	Assesses the image and improves the quality accordingly, by automatically adjusting the phase, frequency and position. Upon completion, the relevant OSD values are updated (H-Position, V-Position, Phase and Frequency)
	Output Image Properties	Output gamma	Adjust the gamma: Gamma 1, 2, 3
		Film mode	Set the film mode: Auto, Video, Film
		Temporal NR	Set the temporal noise reduction level: Off, Low, Medium, High
		Mosquito NR	Set the Mosquito noise reduction level: Off, Low, Medium, High
		Block NR	Set the block noise reduction level: Off, On
		Detail enhancement	Set the detail enhancement: Off, Low, Medium, High If the USB input is selected, Detail Enhancement is set to Off
		Luma transition enhance	Set the luminance transition enhance level: Off, Low, High
		Chroma transition enhance	Set the chrominance transition enhance level: Off, Low, High
		Brightness	Adjust the brightness: 0 to 100
		Contrast	Adjust the contrast: 0 to 100
		Color	Adjust the color: 0 to 100
		Hue	Adjust the hue: 0 to 360
		Sharpness	0-100
		HQV Color Settings	Red, green, blue, cyan, magenta, yellow: -100 to +100
	Scale Properties	Aspect Ratio	Set the aspect ratio: **Best Fit**: The best possible compromise between the input and the output aspect ratios without distorting or cropping the picture **Letterbox** **Follow Output**: Scales the picture to fill the entire output screen When the input and output aspect ratios are the same, the only available option is Follow Output. (The HQV considers resolution 1920x1200 as 16:9) **Virtual Wide** **Follow Input**: Shows the picture without scaling it (pixel-to-pixel mapping) **Custom**
		H-Pan	Horizontal pan: -16 to 16 Available when selecting Custom aspect ratio
		V-Pan	Vertical pan: -16 to 16 Available when selecting Custom aspect ratio
		H-Zoom	Horizontal zoom: -8 to 8 Available when selecting Custom aspect ratio

Menu	Sub Menu 1	Sub Menu 2	Description
		V-Zoom	Vertical zoom: -8 to 8 Available when selecting Custom aspect ratio
		Custom Zoom	Set the zoom: From 0 to 32 (this range is equivalent to 100% to 400%) This function is available after setting the Zoom to custom
		Zoom	Set the Zoom: 100%, 150%, 200%, 225%, 250%, 275%, 300%, 325%, 350%, 375%, 400%, Custom The zoom feature is disabled in cases such as when the aspect ratio is set to custom or when the PIP feature is on
	Over Scan		On, Off
	Projector Anywhere	Compensation Type	Keystone, Anyplace, Rotation
		Projector Location	Front, Rear, Ceiling
		Horizontal Keystone	-40 to +40
		Vertical Keystone	-30 to +30
		Pincushion/ Barrel Effects	-20 to +20
		Rotation in Degrees	-180 to +180
		Diagonal Projection	X, Y from all corners
		Reset to Defaults	Click to return to factory settings
	PIP	Frame	On, Off
		Color	Red, Green, Blue
Display	Set Mode 1		1400x1050x60, 1680x1050x60
	Set Mode 2		1280x1024x75, 1280x1024x76
	Set Mode 3		1280x768x60, 1366x768x60
	Auto Image		Manual, auto
	HDCP Setting		Select Follow Input or Follow Output to define whether the HDCP will follow the input or the output. When Follow Input is selected, the scaler changes its HDCP output setting (for the HDMI output) according to the HDCP of the input. This option is recommended when the HDMI scaler output is connected to a splitter/switcher (in this mode, switching may not be glitch-free). When Follow Output is selected, the scaler matches its HDCP output to the HDCP setting of the HDMI acceptor to which it is connected. This ensures smooth switching, regardless of the input
	Low Latency Mode		On, Off
About			Gives details on the software version number and Kramer Electronics

3.2 Defining the Inputs

The Input area consists of 8 buttons for each channel that are divided into Preview and Program buttons.

Figure 7 shows a typical input button.

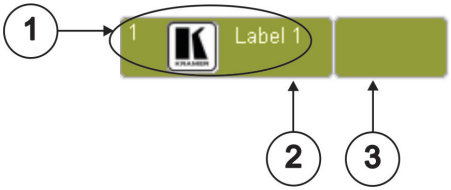

Figure 7: Input Button

#	Feature	Description
1	*1* Label 1	Input channel number, user-selectable icon and button label (see Section 5.3), background color indicates the status of the input/output: green—active, white—inactive
2	*Preview* Button	Click this button to display the chosen channel on the Preview output
3	*Program* Button	Click this button to display the chosen channel on the Program output

3.3 Defining the Windows

The Windows area contains the Preview and Program PIP input dropdowns, the screen display presets and the PIP preview windows.

Button	Button Name	Description
PIP Input		Chooses the PIP source from channels 1 to 8
	Preset Full	Switches to a full-screen output
	Preset PIP	Switches to a picture-in-picture output
	Preset Pic+Pic	Switches to a picture-and-picture output
	Preset Split	Switches to a split screen output
	Freeze Window	Freezes the output display
	Set visibility of window	Blanks/shows the output display

3.4 Defining the Transitions

The Transitions area contains the transition mode buttons, the Mode dropdown and the Take and Advanced buttons.

Button	Button Name	Advanced – Transition Parameters
Mode		Follow, Swap
	Cut	Speed 1, 2, 3
	Fade	Damping 0, 1, 2
	Diagonal Mode	Top Left, Bottom Left, Top Right, Bottom Right
	Wipe Mode	Left to Right, Right to Left, Up, Down
	Circle Mode	In, Out
	Square Mode	In, Out
	Corner Mode	Top Left, Bottom Left, Top Right, Bottom Right
	Chessboard Mode	In, Out
Take		T-Bar Optimization: Best Fit, Letterbox, Follow Output
Advanced – Transition Parameters	Speed	1 to 5
	Damping	0 to 4
	T-bar Optimization	Best fit, Letterbox, Follow output, Virtual Wide, Follow input, Custom
	Diagonal Mode	Top Left, Bottom Left, Top Right, Bottom Right
	Wipe Mode	Left to Right, Right to Left, Up, Down
	Circle Mode	In, Out
	Square Mode	In, Out
	Corner Mode	Top Left, Bottom Left, Top Right, Bottom Right
	Chessboard Mode	In, Out

4 Connecting to the VP-747

To connect the Control Software to the VP-747:

1. Navigate to Device > Connect or click the *Connect* button.
   The *Connection Method* window displays as shown in Figure 8.

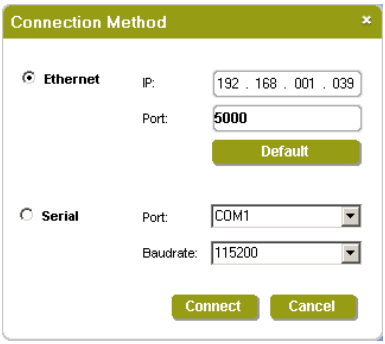

Figure 8: Connection Method Window

2. Select the connection method (via Ethernet over a LAN or serial connection) by selecting the relevant option button.

3. For Ethernet, enter the IP address and Port number of the device and click *Connect*.
   To set the default IP address and Port number, press the *Default* button.

4. For a serial connection, select the required Com port from the drop-down list.

5. Click *Connect*.
   If the connection is successful, the main window shown in Figure 6 appears.
   If the connection is not successful, a timeout error message appears.

5 Operating the Control Software

This section gives a short overview and some examples for using the **VP-747 Control Software**.

Operating the **VP-747** with the Control Software is the same as operating the unit from the front panel or using the OSD. For more information, see the **VP-747 User Manual**.

5.1 Selecting Channels

To select a preview input:

- Click on the required Preview button to activate it (in this example, Input 5). Channel 5 is selected, the button changes to green as shown in Figure 9 and Channel 5 is switched to PREVIEW OUT

To choose a program input:

- Click on the required Program button to activate it (in this example, Input 1). Channel 1 is selected, the button changes to green as shown in Figure 9 and Channel 1 is switched to PROGRAM OUT

Figure 9: Input Selection

5.2 Using the Display Presets

The Preview and Program outputs can each be configured using the presets: full, PIP, P+P and split.

- Full shows the full-screen display of the chosen *Input Switch*
- PIP shows the full display of the chosen *Input Switch* with an inserted image selected from the *PIP Input Switch*. The user can relocate the inserted image by dragging the window and resize it by dragging the corner of the window
- P+P shows the chosen *Input Switch* display side-by-side with the chosen *PIP Input Switch* display. The displays are equal sized and do not cover the full screen. They cannot be dragged or resized
- Split shows the two images side-by-side on the full screen. There may be distortion

1. Activate the presets in the following ways:
    - Navigate to *Menu* > *Display* > *Presets* and choose the desired preset or
    - Click one of the preset tool bar command buttons

Figure 10 shows a PIP window.

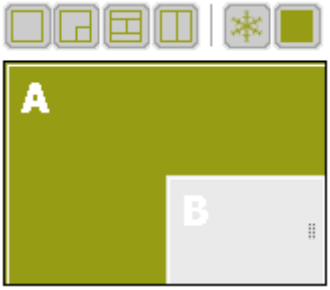

Figure 10: PIP Window

2. Choose the second source (B) by selecting an input from the PIP Inputs dropdown.
3. PIP and P+P screens can be resized by dragging the dotted handles.

5.3 Using Transitions

The preview output can be switched to the program output through a series of transitions defined in Section 3.4.

The modes of transition are:

- **Follow** where clicking Take causes the Program output to follow the Preview setting
- **Swap** that causes the Preview and Program settings to change places with each other

Advanced settings allow the user a wider range of control over the speed and direction of the transitions.

5.4 Customizing the Input Buttons

To change an input button icon and label:

1. Right-click on the relevant input button.
   The button properties window appears as shown in Figure 11.

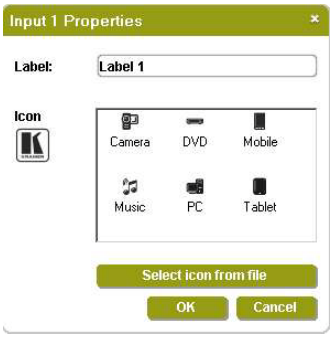

Figure 11: Input Button Properties Window

2. In the *Label* text field, enter the required button label.

3. Either:

   - Select the required icon from the list (you can save custom icons)
     OR

- Click *Select icon from file* and browse to the icon directory

4. Click *OK*.

   The button characteristics are changed and saved.